

ENVIRONMENTAL
DEFENSE FUND

DEC 8

COPY FOR YOUR
INFORMATIONDATE: 12/1/93

FAX TRANSMISSION

California Office
Rockridge Market Hall
5655 College Ave.
Oakland, CA 94618
(510) 658-8008
Fax: 510-658-0630

TO: John Pachel 503-231-6116-231-2364
✓ Ron Anglin 702-423-0416
Rose Strickland 702-786-9964

FROM: D. YordasNUMBER OF PAGES FOLLOWING: 16

**NOTE: On arrival please call recipient at: _____

If transmission is unclear or incomplete, call EDF at 510/658-8008

COMMENTS:

FAXED

010952

National Headquarters

257 Park Avenue South
New York, NY 10010
(212) 505-21001875 Connecticut Ave., N.W.
Washington, DC 20009
(202) 387-35001405 Arapahoe Ave.
Boulder, CO 80302
(303) 440-4901128 East Hargett St.
Raleigh, NC 27601
(919) 821-77931800 Guadalupe
Austin, TX 78701
(512) 478-5161



California Office
Rockridge Market Hall
5655 College Ave.
Oakland, CA 94618
(510) 658-8008
Fax: 510-658-0630

BEFORE THE UNITED STATES SENATE
ENERGY AND NATURAL RESOURCES COMMITTEE

SUBCOMMITTEE ON WATER AND POWER

TESTIMONY OF
DAVID YARDAS, WATER RESOURCES ANALYST
ENVIRONMENTAL DEFENSE FUND.

ON THE
CONTEMPORARY NEEDS AND MANAGEMENT OF
THE NEWLANDS RECLAMATION PROJECT

RENO, NEVADA

DECEMBER 11, 1993

010953

National Headquarters

257 Park Avenue South
New York, NY 10010
(212) 505-2100

1875 Connecticut Ave., N.W.
Washington, DC 20009
(202) 387-3500

1405 Arapahoe Ave.
Boulder, CO 80302
(303) 440-4901

128 East Hargett St.
Raleigh, NC 27601
(919) 821-7793

1800 Guadalupe
Austin, TX 78701
(512) 478-5161

BEFORE THE UNITED STATES SENATE
ENERGY AND NATURAL RESOURCES COMMITTEE
SUBCOMMITTEE ON WATER AND POWER

Reno, Nevada

December 11, 1993

CHAIRMAN BRADLEY AND MEMBERS OF THE SUBCOMMITTEE:

Thank you for the opportunity to testify on behalf of the Environmental Defense Fund (EDF)¹ concerning the contemporary needs and management of federal reclamation projects, particularly those of the Newlands Project in the Truckee-Carson watersheds of Nevada and California.

My name is David Yardas. I am a Water Resources Analyst with EDF's West Coast Regional Office in Oakland, California. EDF has worked on Newlands Project issues since the mid-1980's, focusing from the outset on ways in which contemporary urban, environmental, and irrigation community needs might be satisfied throughout the Carson and Truckee watersheds through increased reliance on market-oriented alternatives. For the last five years we have also worked in close partnership with The Nature Conservancy, whose testimony today outlines many of the ideas that our organizations have jointly explored in efforts to protect and restore, in particular, the Pyramid Lake and Lahontan Valley wetland ecosystems.² Early in 1990, I testified before this Subcommittee in favor of many similar reforms, several of which are today part of the Fallon Paiute-Shoshone and Truckee-Carson-Pyramid Lake Water Rights Settlement Act of 1990 ("the Truckee-Carson settlement").³ And in 1991-92, while continuing to work on Newlands Project issues, I served as lead technical analyst for the Share the Water Coalition in California in the successful campaign to overhaul the federal Central Valley Project (CVP).

In an attempt to answer the questions which are the subject of today's hearing, I would like to focus on two major themes: how EDF views the

Truckee-Carson issues in the evolving context of contemporary federal water management policies; and how such reforms might apply directly to the Newlands Project itself.

For a west-wide perspective, I would like to turn to the logic of the principal reforms embodied in the 1992 Central Valley Project Improvement Act (CVP Improvement Act),⁴ noting that many of that Act's most significant provisions were inspired by provisions of its predecessor, the Truckee-Carson settlement. I should emphasize at the outset, however, that the circumstances of the Newlands Project are in many ways very different from those of the CVP, and that understanding those differences--such as more clearly recognized private water rights, a smaller and more committed Project supply, a smaller Project area and revenue base, shorter growing seasons, poorer soils, older facilities, and the existence of many small as well as part-time "suburban" farm operations--will be important to the ultimate design of locally-appropriate water management reforms.

Nevertheless, I believe that the CVP Improvement Act as a whole reflects much about how we should start to think about an "improved" Newlands Project today: one that is substantially more responsive to environmental and urban-sector needs throughout the inter-linked Truckee-Carson system; and one that allows those who wish to continue to farm within the Project the ability to do so with a maximum of flexibility and a minimum of outside interference. This, above all, will require resolution of the basins' most fundamental issue: how Truckee River water is allocated between the Newlands Project and the Pyramid Lake/Lower Truckee River ecosystem. Absent such resolution, existing laws and regulations will continue to leave the two basins' environmental resources at disproportionate risk, while an extraordinary complex of inflexible rules and regulations (such as having fixed water duties tied inexorably to specific irrigated parcels)

will continue to substantially limit the ability of Project farmers to adjust to changing economic and hydrologic conditions.

With the goal of reaching such resolution, I would like to propose a conceptual framework for the Truckee-Carson as a whole, and for the Newlands Project in particular, that draws upon the logic of the CVP Improvement Act and that will, when customized for local differences, have significant west-wide applications.

1. The yields of existing facilities should be made to serve both current and future needs in the agricultural, urban, and environmental sectors through improved operations, reduced and modified demands, and consensual arrangements wherever possible.

The big-dam building era is over, but its adverse environmental impacts have yet to be adequately addressed. Nowhere is this so clear as in the case of the Newlands Project, where undue reliance on imports from the Truckee River has resulted in dramatic environmental declines for the entire Pyramid Lake/Lower Truckee River ecosystem, and where the Lake's still-uncertain recovery continues to be posed as a trade-off against protection and restoration of the Lahontan Valley wetlands, whose historic source of sustenance--the Carson River--is completely captured behind Lahontan Dam for the near-exclusive benefit of Project irrigators.

Proposals to develop new (and hugely expensive) imported supplies from other areas will only extend the range of impacts noted above, perpetuating a legacy of conflict while at the same time competing for scarce private- and public-sector capital that could instead be used to improve water measurement and management capabilities, provide alternative residential and M&I water supplies within the Project area, and otherwise facilitate the compensated reallocation of Newlands Project water.' In EDF's view,

the problems facing the Newlands Project (and indeed the Truckee-Carson) today will only be resolved through actions which combine to reduce agricultural depletions and diversions in favor of improved environmental, residential, and M&I supplies, and through increased reliance on basin-of-origin supplies within the Truckee-Carson system itself.'

2. *Regulatory as well as incentive-based reforms should be used to provide crucial baseline protections for fish, wildlife, and habitat resources, to foster more equitable risk sharing during periods of shortage, and to establish the environmental foundations upon which markets can effectively function.*

During the 1988-1992 drought, an average of 55,000 Project acres was irrigated each year--about 10-percent less than the pre-drought average of just over 60,000 irrigated acres. In the last and most severe year of the drought (1992), that total dropped to somewhat less than 45,000 irrigated acres--a 25-percent decline from the long-term average, notwithstanding a 72-percent reduction in "normal" water supplies that same year. Gross crop receipts declined slightly between 1986 (\$21 million) and 1988 (\$18 million), then rose to more than \$25 million in both 1989 (a normal year) and 1990 (a 70-percent allocation year) before declining to approximately two-thirds of the 1986 level (\$13 million) in 1991 (a 44 percent allocation year, and the most recent year for which financial data are available). While the sustained effects of the drought may begin to be observed in the 1991 crop receipts data, it seems significant that both total (\$) and unit (\$/Af) receipts peaked in 1990, a year of 70-percent irrigation supplies.

Meanwhile, marsh habitat at the Stillwater National Wildlife Refuge and at Carson Lake--the core Lahontan Valley wetlands except for a relatively small segment of so-called "primary" wetlands within the Fallon Paiute-Shoshone Indian Reservation--declined steadily from more than 35,000 acres

in 1986 to an all-time low of approximately 20 (twenty) acres in 1992.⁷ Today, with farm acreage and irrigation supplies back at pre-drought levels, the wetlands remain at substantial risk: while restored through late-season deliveries to about 8,000 habitat acres this fall, both Stillwater and Carson Lake continue to depend on irrigation drainage (a source of dubious quality and reliability) for up to 75 percent of available supplies during all but the wettest of years. And while purchased delivery rights will help to improve this ratio with time, such rights may share a "recoupment lien" that threatens to undo much of what has been accomplished for the wetlands through the water-rights purchased since 1989.⁸

The 1987-1992 drought also imposed major costs upon Pyramid Lake, in part because the 1988 Operating Criteria and Procedures (OCAP), which are supposed to provide baseline protection for the fishery, do not constrain Truckee River diversions during years of critically-low storage and runoff. As a result, Pyramid Lake dropped more than 16 feet below the crucial minimum level at which spawning access over the Truckee River delta is assured. This, in turn, placed inordinate pressure on the Pyramid Lake fishway at Marble Bluff Dam, and led to the tragic loss of several thousand endangered cui-ui during the 1993 spawning season.⁹

Under the CVP Improvement Act, similar disparities in water supply and hydrologic risk were resolved through dedication of a significant share of that Project's annual yield to fish, wildlife, and habitat restoration purposes. However accomplished, similar substantive protections are needed to stabilize baseline environmental supplies in the Newlands Project context, ideally in conjunction with parallel improvements for Project irrigators (discussed below). For example:

o Assured minimum supplies of Carson River water and good-quality irrigation drainage should be provided to the primary wetlands in accordance with specified monthly delivery schedules, varying by type of year as appropriate. Such assured minimums should be supported not only by a substantial core of fee-purchased rights, but also by restructuring the wetlands' existing return-flow and drain water rights so that they are no longer at the mercy of changes in Project efficiency, water transfers, and overall Project operations.¹⁰

o For Pyramid Lake, improvements to the 1988 OCAP should substantially reduce the Project's continuing reliance on Truckee River imports by--(1)--reducing and strictly limiting the maximum allowable annual Lahontan Reservoir release, except during years of spill, (2) avoiding diversions to Lahontan Reservoir during cui-ui spawning months, and (3) modifying Lahontan Reservoir storage targets in accordance with the scale-back in allowable releases and by incorporating end-of-year carryover requirements as a hedge against next-year droughts.

3. Incentive mechanisms--such as appropriately-structured water transfer authorities, water banking, and meaningful pricing reforms--should be used to bolster baseline protections and as least-cost, mutual-benefit tools for meeting long-term restoration objectives.

Under the CVP Improvement Act, Congress strongly endorsed user-initiated water transfers, water banking, and related management reforms to expand the benefits of the CVP beyond its historic agricultural base. It also allowed individuals to profit from the "off-Project" sale of Project water, but required in exchange (for the benefit of environmental resources and taxpayers alike) a variety of Project-based water and power surcharges, pricing reforms, and water transfer profit-sharing arrangements. Concerns related to the perceived potential for urban-sector dominance of the water

rights marketplace were addressed in part by providing for the exercise of agricultural "rights of first refusal" relative to off-Project M&I transfers, and by further limiting those transfers to a specified percentage of a district's baseline water allocation.¹¹

Under the Truckee-Carson settlement, Congress took a number of important similar steps by authorizing direct acquisition of Project water rights from willing sellers for environmental restoration purposes, and by authorizing urban-environmental water-banking programs in upper Truckee reservoirs, and at Lahontan Reservoir for the Newlands Project itself.¹²

Expansion of these concepts is needed. First, water rights purchases for the Pyramid Lake/Lower Truckee River ecosystem should be fully integrated into an expedited "baseline protection program" for the Lahontan Valley wetlands, as discussed above.

Second, the banking of Newlands Project water in Truckee River reservoirs should be facilitated through credits tied to the water that would otherwise be diverted to Lahontan Reservoir under a reformed OCAP. This would allow for provision of Truckee River water to the Project's Carson Division on an "as needed" basis during summer and fall months, as well as voluntary upstream marketing of a portion of banked Project supplies¹³ and utilization of a portion of such water for benefit of the Pyramid Lake fishery. Such reforms would stop short of an outright physical severance of the Truckee-Carson systems,¹⁴ but would also lead to the effective "operational decoupling" of those systems by substantially increasing the Project's reliance on Carson Basin supplies, and by reducing if not eliminating Truckee River imports during all but the most critical of years.¹⁵ Upper-basin banking would also provide a mechanism through which "recoupment" debts could be paid without unduly penalizing the Project during years of sufficient Carson River runoff.¹⁶

A third and important need pertains to the development of a "share and trade" system to resolve concerns over inactive Project rights,¹⁷ to allow for the flexible re-allocation of available Project supplies among those who continue to farm, and to facilitate the lease and/or purchase of Project entitlements for M&I as well as supplemental environmental purposes. Such an approach might be adapted from the allocation system used in the Colorado-Big Thompson Project, under which Newlands Project water rights would be voluntarily converted to more readily-tradeable shares or "units" whose annual declared value would depend upon available water supplies as limited by the OCAP and environmental reforms discussed previously.¹⁸ Declared-value shares could then be freely traded (sold, ~~leased, or exchanged~~) among Project shareholders, ~~in whole or in part,~~ without strict appurtenancy or other existing limitations, allowing available supplies to flow freely each year to highest-valued irrigation and/or local M&I and residential uses, to conservation buyers (for supplemental wetlands acquisitions, for example), and to off-Project entities under specified constraints.¹⁹

The potential adverse impacts of off-Project purchases and leases by upstream M&I interests (including the purchase or lease of "conserved" water under the aforementioned share system) would of course have to be carefully monitored and fully mitigated.²⁰ Pricing reforms that match the amounts of Project water used with amounts paid are also needed, both for their conservation incentives (especially where "tiered rates" are employed) and for the incremental revenues that they could generate for environmental as well as other Project needs.

4. Funding for environmental restoration measures (e.g., supplemental water purchases) should be secure, sustained, and sufficient, and should be derived where possible from those who impose costs on the environment through the use and benefit of Newlands Project water and facilities.

Under the CVP Improvement Act, Congress established an environmental Restoration Fund to assist in financing the "projects, programs, plans, and habitat restoration, improvement, and acquisition provisions" of that Act. Restoration Fund income is to be derived each year from mitigation and restoration surcharges on Project water and power use, from increased receipts from tiered pricing reforms, and from "off-Project" water transfer profit-sharing arrangements. A priority purpose of the Fund is to provide an assured source of revenues that can be used over time to lease, option, or otherwise acquire supplemental environmental water.

For the Newlands Project, and for other federal reclamation projects as well, a similar approach is needed. Fortunately, the foundation for such an approach already exists in the Lahontan Valley and Pyramid Lake Fish and Wildlife Fund established under the Truckee-Carson settlement.²¹ What's needed now--particularly if leases are to play a significant role in bolstering baseline environmental protections--are enhanced revenues under existing authorities, additional sources of revenue, and the means to implement supplemental water acquisitions in a community-sensitive manner.

With respect to revenues, there are many possibilities: enhanced payments for the use of federal Truckee River storage facilities under current authorizations;²² auction payments for M&I or irrigation use of undiverted Project water; surcharges on the continued use of federally-owned hydroelectric facilities, and/or reprogramming of all or a portion of associated revenues;²³ "off-Project" water transfer profit-sharing arrangements; Truckee and Carson River basin diversion, delivery, or depletion surcharges;²⁴ effluent fees; recreation and wildlife user fees; and mitigation surcharges on Fallon Naval Air Station fuel spills or fuel use, to name but a few. Federal contributions to the Fund could also be provided on an annual matching basis, and/or tied to the United States' share of unit-based surcharges for deliveries of acquired Project water to

Lahontan Valley wetlands (i.e., where Project facilities are used for the conveyance of acquired water).

When it comes to managing such funds, a locally-based Restoration Trust may provide the best means of ensuring that available sums are expended for the purposes intended, and in a manner consistent with local community preferences. The Trust could also help in implementing other important aspects of the long-term acquisition program, such as land exchanges, establishment of "targeting" priorities, and the rehabilitation and restoration of retired farmlands.

o o o

Taken as a whole, the above themes and principles describe what EDF sees as two essential concepts in the evolution of federal water management policies and programs: Enhanced Trading Opportunities in conjunction with increased environmental requirements (where trading systems are implemented to assist in meeting contemporary watershed needs, as well as those affected directly by improved environmental baselines); and Restoration Pricing (where a variety of user-based fees, surcharges, and subsidy reductions are used to generate revenues that can "close the gap" between what can be accomplished through enhanced trading systems, and what needs to be accomplished over the long-term). These, I believe, are the building blocks for modernizing federal reclamation projects, including, in particular, the contemporary needs and management of the Newlands Reclamation Project.

"What," I was recently asked by a Churchill County commissioner, "is your plan for the Newlands Project?" I responded that we do not so much have a plan as a host of ideas about fundamental needs and relationships, as well as the importance of viewing change (the only constant) for the

opportunities it presents. In this context, an ideal outcome for the Newlands Project (there is no single answer) would include the continued health and vitality of a smaller, leaner, and more economically-oriented agricultural base as part of an expanding and diversified regional economy; the protection of core agricultural and community recharge areas (including, in particular, a rehabilitated Carson River corridor); community-based ownership of and involvement in the Lahontan Valley wetlands restoration effort as an integral part of Newlands Project operations and purposes; development of a centralized water distribution and treatment system to meet growing M&I and domestic needs; and reforms that facilitate the voluntary and compensated movement of water to its most highly-valued uses once appropriate environmental safeguards are firmly in place. Even more, we would hope to see "community" defined and understood in the largest sense of the word, where the insurance provided by the Truckee River is viewed as a continuing link to a larger community of needs and values--something to be respected and valued, not simply expected and assumed.

Achieving these goals in the context of the Truckee-Carson settlement will not, of course, come for free: the environmental (as well as Native American) debts that have accrued for having neglected so much for so long cannot be paid off without substantial contributions from those who have long benefitted from such neglect; and the federal government, which first invited homesteaders into the Lahontan Valley, must also be prepared to contribute financially, on behalf of the public interest in environmental protection (as reflected in the Truckee-Carson settlement) and in equitable treatment for those who relied upon its early promises and policies.

In closing, I would reiterate that important differences between the Newlands Project and the Central Valley Project will make comprehensive reform efforts here both challenging and, in some respects at least, more

difficult. But the 1990 Settlement Act provides both the foundation and the framework for moving forward today, along with many of the key reforms that should be part of any long-term solution. Moreover, non-agricultural expansion and growth in the Newlands Project area can be asked (and should be expected) to help as that community adjusts to changing realities and circumstances.²⁵ With the above considerations in mind, EDF is committed to working with this Committee, with others in the Congress, and with the basinwide community of stakeholders and interests to build on the Settlement Act's foundation and framework, and to structure a comprehensive and lasting resolution of the problems that still remain.

ENDNOTES

1. The Environmental Defense Fund (EDF) is a non-profit conservation organization that employs scientists, economists, attorneys, computer modelers, and other environmental professionals who seek innovative solutions to a wide array of environmental problems. EDF works to protect endangered species and wildlife, conserve water and energy resources, control toxic chemicals, improve air quality, encourage recycling, and address international environmental issues. EDF has over 250,000 members nationwide.

2. Since enactment of the Truckee-Carson settlement 1990, our partnership has helped state and federal agencies to acquire more than 12,000 acre-feet (AF) of Newlands Project water rights for environmental restoration purposes. We have adapted the Truckee-Carson hydrologic/operations model (also known as the "Negotiated Settlement model") to operate in conjunction with what is now known as the Below Lahontan Reservoir model, which we also support and disseminate to interested parties. We have also initiated a biodiversity inventory of Lahontan Valley wetlands; helped to spearhead organization of the Lower Truckee River Restoration Steering Committee; and worked with federal, state, tribal, urban, agricultural, and other conservation interests in both watersheds to better understand their points of view, and to help them understand ours.

3. Public Law 101-618, 104 STAT.3289.

4. Title 34 of Public Law 102-575, The Reclamation Projects Authorization and Adjustment Act of 1992, 106 STAT.4600.

5. Under current conditions, for example, more than 180,000 acre-feet (AF) of water are "lost" each year to seepage and evaporation in the conveyance, storage, and application of Project water. Of this total, an estimated average of 30-40,000 AF will eventually flow through Project drains to the Lahontan Valley wetlands. Some 70-100,000 AF of the difference goes to recharge the shallow aquifer upon which some 4,000 rural residents depend, as well as (in some areas) the deeper basalt aquifer that is used by the City of Fallon, the Fallon Naval Air Station, and the Fallon Paiute-Shoshone Tribes. But throughout the Project area, M&I and rural-domestic demands amount to only about 6,000 AF annually--less than 4 percent of total Project losses. If these uses can be protected in other ways--e.g., through development of an M&I water distribution system and through dedicated recharge and/or surface treatment facilities--the savings could be "harvested" for other uses through canal lining programs, targeted buy-outs, and other approaches. Such efforts would also help to resolve existing water quality concerns, including high arsenic levels, commingled septic discharges, and Naval Air Station fuel spills.

6. In the Carson River basin above Lahontan Reservoir, an estimated 58,000 acres of alfalfa and pasture are irrigated each year. Associated upstream depletions--some 140,000 AF/year, or about the same as those of the Newlands Project below Lahontan Reservoir--may therefore contribute to the uncompensated costs imposed upon the Lahontan Valley wetlands, Project irrigators, and other Project area interests. Yet upstream activities have undergone comparatively little scrutiny in the past due in particular to the assumed availability of Truckee River water as a supplemental source of Newlands Project supply. In the future, increased reliance on Carson basin supplies (accomplished through efficiency improvements, acquisitions, and related options) should be a primary feature of Newlands Project operations.

7. The estimated pre-Project average for Stillwater marsh and Carson Lake was about 150,000 acres. Truckee River diversions to the Newlands Project effectively "transplanted" an additional 27,000 acres of wetlands at Lake Winnemucca (adjacent to Pyramid Lake) into the Lahontan Valley, masking for decades the Project's true impact on Lahontan Valley wetlands. The 1990 Settlement Act establishes a long-term average restoration objective of 25,000 "primary" acres (i.e., less than one-fifth of the pre-Project average) at Stillwater, Carson Lake, and the Fallon Indian Reservation, and directs the Secretary of the Interior to acquire sufficient water and water rights to meet that objective. This total does not include Project regulating reservoirs or other "secondary" wetlands because primary habitat functions at those sites (such as nesting, feeding, and refuge from disturbances) cannot be assured.

8. Since 1989, more than 12,000 AF of annual Project water rights have been purchased for the wetlands' primary benefit; under current USFWS projections, an additional 88,000 AF (or more) will be needed to meet long-term restoration objectives. These estimates do not account for more than 1,000,000 AF of Truckee River water that the Department of the Interior estimates was unlawfully diverted at Derby Dam between 1973 and 1988--an amount for which acquired wetland rights may be partially liable. The wetlands will also be adversely affected by the concomitant loss of irrigation return flows associated with any recoupment strategy that does not somehow "insulate" total wetland supplies.

9. Earlier this year, the USFWS also reported that the population status of the federally-endangered cui-ui fish has improved significantly during the past several decades. While this is great news for the cui-ui, it appears that most of the improvement is related to the record flood years of the early 1980's, and to the existence of fish-passage facilities at Marble Bluff Dam. We cannot, however, count on the regular repeat of those high-flow years, and the Marble Bluff facilities are in desperate need of repair. Moreover, other ecosystem needs--such as flows for lower-River riparian restoration and possibly for recovery of the Lahontan cutthroat trout--have yet to be taken into account.

10. The wetlands existing drainwater rights do not currently imply any right to call for the delivery of Project water, or to maintain any level of tailwater, return flows, drain flows, or spills. As formulated herein, all minimum supplies--including purchased rights and re-structured drainwater rights--would be "insulated" from the potentially-adverse impacts of changes in Project efficiency, off-Project transfers, and related factors.

11. The 20-percent limit is actually a threshold which differentiates between user-initiated transfers that need only the Secretary's approval, and user-initiated transfers that are subject to review and approval by the user's contracting district. But all deliveries and transfers of CVP water are subject to the priority allocation of "baseline" fish and wildlife supplies, and to all obligations under state and federal law.

12. The Newlands Project water bank authorization will not take effect until the Truckee-Carson Irrigation District has entered into an agreement with the Secretary over recoupment of Truckee River water.

13. Lahontan Reservoir and the Truckee Canal currently account for an estimated 60-80,000 AF of seepage and evaporation losses each year, a significant portion of which could be saved if held in upper Truckee reservoirs.